

CRITICAL REFLECTIONS AND RECOMMENDATIONS DERIVED FROM PROVIDING OVER 20,000 HOURS OF PRACTICUM INDUSTRY PLACEMENTS FOR TERTIARY STUDENTS IN EXERCISE SCIENCE, SPORT AND FITNESS



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ABSTRACT

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More than 30 of the 43 universities in Australia offer an exercise science and/or sport science degree programs. In the Vocational Education and Training (VET) sector, more than 160 Registered Training Organisations offer Australian Government approved fitness training courses. The paper is a self-reflective exercise based upon mentoring placement students from multiple registered course providers from the VET sector fitness strand. Combined with reflection on apparently healthy general population hours for placement students from six Sydney city and one regional New South Wales based universities this represented evaluation of more than 200 students and more than 20,000 placement supervision hours. This observation was based upon student placements conducted over the previous seven years, though a significant proportion of the students surveilled were from the previous 36 months. A number of recommendations were developed that may be relevant not just for health, fitness and exercise and sport science courses, but also may be relevant to industry mentorship across a range of fields.

1. INTRODUCTION

The paper is based upon the researchers' experiences and critical self-reflections in conducting workplace learning practicums for students. This draws upon experience gained mentoring industry placement/work experience students in fitness courses, including exercise and sports science courses over a number of years. Such students included those from Vocational Education and Training (VET) based courses, as well as those from the university sector. It is hoped that evaluation of the discussion experience gained from providing such a service, together with a combination of practical recommendations for supervisors considering offering workplace learning or continuing to do so, may be of interest to the mentors both within the fields of health and fitness, as well as to practitioners in other disciplines that can relate to similar practical issues. As well as approaching topics relevant to multiple disciplines engaging in mentoring across education and science, this report also includes specific comments to VET and university sector education providers. These comments may be of broader interest to other

international organizations and associations offering workplace learning services in terms of their position in relation to such education providers and the perception as well as recognition of the service that they offer.

Different universities require a varying number of placement hours from their students, which are typically split hours across multiple placement facilities. VET and university placement supervisor instructions and websites indicate the hours required in a placement program at a particular facility may range from 60hours to more than 150hours. There are also guidelines for practical placement hours in order to meet professional body accreditation, outside of the university sector. For VET sector courses, this is also highly variable and can range from 30 hours to in excess of 100 hours per course. Often students might be enrolled in a number of courses and assigned only one block of hours (e.g. certificates III and IV in Fitness requiring 100hours total).

Similar to the VET sector, universities have financial considerations. In one aspect placement units can be considered to be a cost-effective strategy of teaching, with students still paying course fees, but only requiring a practicum coordinator, usually on a part-time basis, often shared between courses or given multiple responsibilities outside of directing placements and possibly with limited qualifications in Exercise and Sports Science. There may be some costs involved with paying for supervision fees for students (in other fields or where there is a more clinical focus). However none of the seven universities or RTOs documented in this observational report offered any payment for such a service.

These qualifications or experiences may also be limited with respect to the broad range of topics and activities required in the practicum workplace. These costs are saved as paying clinical professionals conducting the placements is generally more economical (the supervisors are not highly paid or often not paid for this service) and general population supervision by mentors is often gratis. Health Workforce Australia reported an average of clinical hours (not including general population hours) of 368 per exercise physiology student ([Health Workforce Division Department of Health, 2014](#)) and that the demand for provision of supervision hours was growing ([HWDDH, 2014](#)). Often the large quantity of practical hours is in fact also used as a selling point by universities. For example, one course advertised that it included 500hours of supervised clinical practicum placement (though such an amount of hours is a common level, the reference is not supplied to allow some level of anonymity for the course in question).

Some universities have a reduced focus on practical instruction of exercise techniques in their sport/exercise science courses. This was confirmed by web searching of degree course structures that are accessible from the public domain. This may be for a number of reasons, such as the focus is elsewhere (e.g. multiple theoretical biomechanics, marketing or sports management units), accreditation requirements for professional exercise physiology organisations may require a certain number of units in a certain field requiring removal of other units and practical exercise technique units may be the casualty (they may just seek to meet the minimal requirements for practical exercise instruction outside of placement units as dictated by the accreditation process), or changing a degree course structure to include more profitable common, generic skills units may also result in such a reduction in practical exercise instruction units.

Systematic computer searches confirmed more than 30 of the 43 universities in Australia offer an exercise science and/or sport science degree programs, whilst the majority of these courses are accredited under a professional association, 26 universities have sort additional accreditation via a privately owned professional body. In the VET sector, more than 160 Registered Training Organisations (RTO) offer Australian Government approved fitness training courses, as per public domain web searching. As well as supervision of VET students for RTOs, industry professionals (acting as workplace supervisors taking part in practicum supervision) may find themselves supervising university students for “apparently healthy” practicum hours as part of their workload. There are numerous conditions for qualification as a supervisor such as degree, or postgraduate university qualifications, being a state sport coach, holding a VET Diploma in Fitness or holding a VET Certificate IV in Fitness with a minimum of 10 years of industry experience. Additionally, holding a strength and conditioning

qualification from a specific privately owned organisation is also mentioned as one of the appropriate criteria for supervision of apparently healthy population practicum hours for many of these university courses.

In a professional working environment, it is important to have not only hard skills, such as the knowledge and technical competency to perform the tasks required for a profession (Robles, 2012) but also soft skills. Soft skills are skills required for interpersonal interaction (Robles, 2012). It has been suggested that many tertiary education providers do not emphasize soft skill requirements (Rainsbury *et al.*, 2002). Soft skills, due to interaction within a health and fitness business are often used during placements. Research has demonstrated that practicum placements help engineer a smooth transition to effective professional practice (Billett, 2009).

2. METHOD

This self-reflective, descriptive exercise concerning mentoring industry placement students was based upon observations relevant to VET course students (Certificate III, Certificate IV and Diploma in Fitness), as well as university students completing their general population placement hours. Observations on students placed for specialist population/clinical hours was excluded from this report, as it was deemed that whilst some health and fitness professionals might be recognised as appropriate to supervise such hours, this would not universally be the case. Additionally, it was believed that observations on general population hours practicum students was of more direct relevance, thus of more interest to the exercise, health and fitness profession as a whole, than specialist/clinical population hours. Similarly for VET sector student supervision, hours of supervision for VET courses outside the three fitness courses mentioned above were excluded (e.g. Diploma of Massage, Diploma of Sports Coaching, Certificates in Allied Health Assistance etc.).

To further inform the views and cogent outcomes of this report, observations were compiled from a team of supervisors, representing views of those with extensive experience teaching courses in VET and/or university sectors relevant to exercise, health and fitness, supported by those with minimal to no such experience. Observation was also made by university staff not involved in supervising practicum students. Such a selection was made in order to develop a more rounded view.

3. RESULTS

The following observations were based on assisting multiple registered course providers in providing student practical placement services, all in an unpaid capacity. Reflection was based upon placement students from multiple registered course providers from the VET sector fitness strand. Combined with reflection on general population hours placement students from six Sydney and one regional NSW based universities this represented evaluation of more than 200 students and more than 20,000 placement supervision hours. This observation was based upon student placements conducted over the previous seven years, though a significant proportion of the students surveilled were from the previous 36 months.

The critical self-evaluation process of workplace supervising brought attention to a diverse array of concerns. The delivery of an educational and supportive environment to assist with the appropriate development of such students was viewed to be exceedingly time consuming.

3.1. Key Findings Relevant to Practicum Students from the University Sector

1. There was a high variability between students in terms of desire to learn and interest in practical exercise instruction principles, knowledge, experience of working in a commercial environment (with many never having held a job of any kind before, having directly transitioned from school to university), co-operativeness, and work ethic. The high variability between students, echoed in the different courses at different universities, was reported to make planning harder, due to reduced ability to predict student capabilities.

2. Many students seemed to believe that the facility was being paid for hours of practical experience provided, however these services were in fact provided in a purely voluntary capacity. Students were thus not as aware of the good faith put in to providing practicum supervision.
3. It was a general consensus that most universities for which a placement environment was provided, did not recognise the time and workload required by placement facility staff.
4. Some universities assigned placement students a mark based upon a report at the end of a student's industry placement. This may have helped to promote more attentive behaviour patterns for some students if they were aware of an assessment based upon performance. Unfortunately, cases were identified where students demonstrated little interest in developing practical skills, focusing entirely upon what mark they might receive and how they might attain those marks, as opposed to developing a level of generic work skills that were sorely lacked, together with specific practical experience of the general principles of exercise and sport science.
5. Some students appeared to be dramatically underprepared on presentation to the facility and had minimal knowledge of basic concepts such as exercise instruction and program design. It was necessary in the opinion of the supervisors to teach them such fundamental skills.
6. In some cases, students presented with minimal or incorrect knowledge of the basic principles of exercise science such as exercise instruction and programming, however believing they possessed a high degree of knowledge in this area. A great deal of education and in some cases re-education was required which was on occasion a tedious and demanding task.
7. It was observed that for supervising coaches without extensive prior experience of working with interns, teaching at the relevant level, or being aware of the relevant course and the associated level of knowledge and expertise of the students, at times found it particularly burdensome or challenging to supervise students. Sometimes this could be extremely demanding for the supervisors and these coaches in particular expressed preference for discontinuing the provision of this free professional service.
8. For those universities with shorter placement allocations it could be difficult to gain any benefits for the placement facility as 60 hours was often not adequate to train a practicum student with adequate skills and abilities that in return they could make a contribution to the daily activities of the workplace. On the contrary however 150 hours is a significant investment of time and if the student was not passionate about learning and developing, then this could be frustrating.
9. Mentoring university placement students could potentially be an exceedingly rewarding experience. Whilst some students might have no interest in their practicum placements for the purpose of developing vital industry skills and knowledge, for those that were interested and passionate about exercise/sport science, the positive emotional reward of assisting and helping develop a future professional in the health and fitness industry on their path mitigated all negative factors associated with placement supervision.

3.2. Differences Reported For the Scenario of Practicum Students from the VET Sector (Fitness Courses Only)

1. As per the university sector, providing practicum placements for students from the VET sector could be a highly rewarding experience, with some VET sector students keeping in touch after graduating through their own businesses or joining the health, exercise and sport science team in some capacity.
2. In general, it was observed that VET sector students had more interest in the practical skills required for the health and fitness industry. For some this was attributed to the students having completed exercise training activities themselves, prior to study, though often it was also because they wished to work in the fitness industry as a career choice and consequently were enthusiastic and passionate to learn and develop new skills.
3. It appeared many VET sector students lacked knowledge in certain areas compared to university students, though university students displayed more variability in their pre-existing knowledge. As a generalization, it

was observed that the knowledge of basic exercises, basic program design and ability to interact with clients was much higher in VET sector students than university practicum students. A noted difference was that university students on average displayed far higher knowledge in the areas of anatomy, psychology, motor learning, biomechanics and physiology.

4. Some of the best performing practicum students were in fact those who had previously studied VET courses, had work experience in the industry and were now completing their practicum hours as part of their university course. This observation indicates the value of such an articulation into the university system.
5. A number of strength training coaches who had worked with large RTOs found that they could coerce involvement with larger franchises over boutique gyms. The claim was made that placement hours could turn into a recruitment process, rather than an opportunity to learn principles and develop skills without an alternative agenda.
6. Another observation was that some RTOs were undergoing a similar issue to the lack of practical exercise instruction skills being taught at some universities. Some RTOs appeared to be very concerned with current fads such as one example of dropping Olympic lifting from the syllabus, in order to create time to discuss a circuit training exercise trend called Crossfit. Rather than teaching basic principles which would assist students to evaluate the next fad for themselves they were more concerned about what was considered the current fad.
7. It was reported that in some large RTOs if they were partnered with another company they would suppress mention of competitors and even exclude coaches from participating in their courses. An attitude that would perhaps not be replicated in the university system.
8. Many RTOs had more focus on (more units/teaching time allocated) working with special populations than performance, with multiple modules on special populations and group exercise vastly outweighing athletic focused programming and exercise instruction.
9. Placement students had reported to supervisors that much of what they had learnt in their courses appeared to not be relevant in a practical environment. One interesting comment was "I would have preferred more emphasis on things like periodization which you actually need to be proficient in rather than topics such as the correct way to hand someone a water bottle and towel".

4. DISCUSSION

From the involvement of the practicum supervisor in the workplace there appears to be variations in the knowledge and skills in students from different universities and courses. One limitation of this from the field report is that it is based upon observations from Sydney, Australia and findings may not be wholly extrapolated to other states or rural settings even within Australia. It is hoped that observations and suggestions presented may be of interest to those health and exercise practitioners considering or currently taking industry placement students in order to provide information that might allow better informed decisions in their own practices. It may also be of interest to those providing mentorship in other fields in research and education. Some of the basic principles discussed may be able to be translated into other settings and perhaps the findings from the many thousands of supervised hours discussed in this report may assist those conducting mentorship in other areas. Most importantly, it should be remembered that the negative and positive issues raised above apply to some students, but certainly not all practicum students. There are a multitude of factors involved in the successful supervision of students which includes teaching satisfaction (Henderson *et al.*, 2018).

Although it was observed that the attitude of the placement student was a more important factor than their knowledge on commencement, it might be suggested that education providers in the university sector, should be aware of quality control issues, enforcing a minimal level of skills and abilities prior to being able to initiate placement. It should be noted however that with the significant emphasis on the important role VET training plays

in assisting graduates to gain employment (Eichhorst, 2015) the focus on practical exercise instruction skills in the workplace and the competency based approach to assessment in Australian VET courses (Hodge, 2016) differences in practical competency performance would be expected, as were observed. This aligns with the recognition of the importance of work based experiences well recognized as a part of VET education provision (Billett *et al.*, 2015).

Although it is observed that the universities have differing course structures, they have become more homogenous in recent years primarily due to private organization driven professional body accreditation requirements. Whilst it does make it more challenging at times to deal with students at very different levels of knowledge, having a variety of students can at times be helpful and make practicum more interesting. In terms of homogenising the content of courses (such as for accreditation requirements), whilst it might make practicum supervision easier, it is viewed as a negative outcome in terms of prescriptiveness (McAllister and Nagarajan, 2015) and collective student knowledge (reducing knowledge and skill diversity that can promote industry innovation) and is not a recommendation of this report.

Those (rare) university practicum students believing that they are experts in the field, but often demonstrating incorrect knowledge, might be attributed to a number of factors. One concern is that this may be related to less experienced (such as recent graduates) or sessional (part time) staff in exercise instruction related units losing some consistency across the degree. It is also a concern that due to strict guidelines to attain professional accreditations in the field of exercise physiology, at least one of the Sydney based universities significantly reduced its number of practical exercise based units (reducing formal learning hours in relevant units). Additionally, some university course structures in the public domain promote inter-disciplinary generic skills in common units that are run across many different subject fields not related to exercise and sport. These generic skills based common units are run across multiple different subject fields primarily for economical purposes. Including such units in an exercise and sport science degree necessitates reduction of units specific to exercise and sport science and may also result in less domain specific knowledge in undergraduates and graduates.

5. CONCLUSION

Whilst a series of concerns have been raised about practicum students, the reward is great when the motivated student is supervised properly. It was a general consensus that VET students were preferred over university placement students. Though there was great variation between students, there was also great variability between different universities. It was generally believe that universities and some of their students, were under appreciative of the service provided. It should be considered whether this would change if a financial contribution for general population placement supervision was required as per specialist clinical hours. The recommendations below may well prove relevant not just for health, fitness and exercise and sport science courses, but also may be relevant to industry mentorship across a range of fields.

6. RECOMMENDATIONS AND KEY FINDINGS

1. A supervisor can expect practicum students to present with very different knowledge levels, experience and passion.
2. Many students are underprepared for practical work in the industry and the work done to prepare them can be underappreciated, despite the fact that this can be very demanding for the workplace supervisor
3. The time costs and work needed to adequately provide a placement environment imply it may be appropriate to request funding, particularly from the university sector, for mentoring students on general population practical placement, as per clinical population students. Several universities pay a fee for this service, though no fee was offered by the seven universities in this report.

4. It should be considered that even experienced staff, should they not be experienced at teaching or supervision may find this activity particularly time consuming and demanding. Thus additional mentorship or assistance may be required for the novice workplace supervisor.
5. It would be prudent to accept practical students in a trial capacity, particularly for those requiring more than 100hours of practicum, which requires a filtering process, such as interviewing potential candidates.
6. Feedback for the university practicum coordinators would be to indicate to students where placements are provided on a voluntary basis by industry, which may increase level of appreciation by students.
7. For university students complementing an exercise/sport science degree with some VET study, or seeking a mentor may be indicated on/prior to graduation for increased preparedness prior to working in this industry sector related to human fitness, sport and general exercise.

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